



**ThermoProbe Inc.**



## TL3-A

**Intrinsically Safe**  
Reference Thermometer  
for Field and Laboratory

The Intrinsically Safe **TL3-A** thermometer is the latest evolution of ThermoProbe's industry standard TL series. The TL3-A has been certified to the latest global standards for hazardous locations (Ex).

A large display and easy to hold design makes the TL3-A more convenient for use as a reference in the lab or field. The rugged plastic alloy case and buttons are well suited for use in industrial applications, even with gloves. The TL3-A innovative circuitry provides improved temperature accuracy, response time and battery life.

TL3-A thermometers are intended to be used anywhere a precision glass stem thermometer or other type thermometer is used.

Versatile software functions allow easy selection of Celsius or Fahrenheit units and display resolution. Minimum, maximum and average temperatures are automatically stored to memory for later reference. Low battery display, and failure mode indications protect the user from false data. Encoded Calibration is unaffected by temperature, vibration, or battery removal.

Through numerous distributors equipped for calibration and repair, the TL3-A can be supported in many locations throughout the world.

A one year warranty, protective case and NIST traceable 4 point calibration report are included.

### CERTIFICATIONS



Ex ia IIC T4 Ga  
ITS19ATEX205407X  
II 1 G IECEx ETL 19.0075X

#### Temperature:

Accuracy  $\pm 0.1^{\circ}\text{F}$  ( $0.06^{\circ}\text{C}$ )

-standard calibration  $14^{\circ}\text{F}$  to  $320^{\circ}\text{F}$

Standard 4 point calibration:  $32^{\circ}\text{F}$  ( $0^{\circ}\text{C}$ ),  $120^{\circ}\text{F}$  ( $49^{\circ}\text{C}$ ),  $199^{\circ}\text{F}$  ( $93^{\circ}\text{C}$ ) &  $300^{\circ}\text{F}$  ( $149^{\circ}\text{C}$ )

Resolution: 0.01 Degrees

Range:  $-40^{\circ}\text{F}$  to  $400^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$  to  $204^{\circ}\text{C}$ )

-Note: Standard calibration does not provide full range accuracy

Custom calibration points and ranges available.

Temperature time constant:

6 seconds in circulated water bath

(time response to 63.2% of temp. step change)

Recommended minimum immersion depth: 3" (7.6cm)

#### Interface Features:

0.5" (12.7mm) character LCD

Switchable units  $^{\circ}\text{C}$  or  $^{\circ}\text{F}$

Resolution 0.1 or 0.01

Low Battery & Fault indication

Continuous operation or Auto Off after 20 minutes.

Stores and displays Average, Lowest & Highest readings.

Arrows indicating increasing/decreasing temperature.

Recommended ambient temperature range:  $32^{\circ}\text{F}$  to  $112^{\circ}\text{F}$   
( $0^{\circ}\text{C}$  to  $44^{\circ}\text{C}$ )

#### Construction:

Stainless steel RTD temperature sensor

- 100 $\Omega$  Shock resistant Thin-Film RTD

- Standard 8" (20cm) or 12" (30cm) lengths

- Standard 0.25" (6.35mm) diameter

with 0.188" (4.76mm) reduced tip

Static-dissipative plastic enclosure with a durable polyester graphics window.

Nominal body dimensions: 5 x 1.75 x 0.85"

(13 x 4.4 x 2.2cm)

Nominal weight: 4 oz (113 grams)

#### Battery:

3V Duracell DL2032 coin cell

Over 150 hours service life at  $70^{\circ}\text{F}$  ( $21^{\circ}\text{C}$ )

Ambient temperature operating range  $-4^{\circ}\text{F}$  to  $140^{\circ}\text{F}$   
( $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ )

Note: Battery may not provide adequate power if used outside operating range.

### TYPICAL APPLICATIONS

Distillations, temperature baths, melting point tests, flash point tests, reference, thermowells, provers, temperature calibration for flow meters.

Industries:

Laboratory

Petroleum

Pipeline

Pharmaceutical

Food